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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,684	10/24/2003	Paula J. Armstrong	GP-303117	8664

7590 09/29/2004

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EXAMINER

LE, DAVID D

ART UNIT	PAPER NUMBER
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3681

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/693,684

Applicant(s)

ARMSTRONG ET AL.

Examiner

David D. Le

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. This is the second Office action on the merits of Application No. 10/693,684, filed on 24 October 2003. Claim 1 is pending.

### Documents

2. The following documents have been received and filed as part of the patent application:
  - Information Disclosure Statement, received on 03/12/04
  - Drawings, received on 03/12/04
  - Declaration and Power of Attorney, received on 03/12/04

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 6,572,507 to Korkmaz et al. in view of U. S. Patent No. 6,135,912 to Tsukamoto et al.**

#### Claim 1:

**Korkmaz** (Figs. 1 and 12; column 2, line 65 – column 3, line 10; column 4, lines 4-67) discloses an automatic transmission comprising:

- A transmission housing (column 3, line 2);
- An input shaft (10);

- An output shaft (11);
- A forward planetary gearset (2);
- A central planetary gearset (3);
- A rearward planetary gearset (4);
- Wherein the forward planetary gearset includes a planet carrier member (15) continuously connected with a ring gear member (18) of the central planetary gearset and a ring gear member (14) continuously connected with a planet carrier member (23) of the rearward planetary gearset and the output shaft;
- Wherein the central planetary gearset includes a planet carrier (19) continuously connected with a ring gear member (22) of the rearward planetary gearset and a sun gear member (16) continuously connected with the input shaft;
- Five torque-transmitting mechanisms (5-9) having friction disc structures;
- Wherein five torque-transmitting mechanisms include two clutches and three brakes (see Fig. 1); and
- Wherein the five torque-transmitting mechanism are engaged in combination of two to establish six forward speed ratios and one reverse speed ratio between the input shaft and the output shaft through the planetary gearsets (see Fig. 12).

**Korkmaz** does not explicitly disclose a transmission housing including:

- A front end wall;
- A rear end wall;
- A band brake;

- A hub;
- A plurality of servomechanisms; and
- Wherein three torque transmitting mechanisms include friction discs positioned between the front end wall and the forward planetary gearset and at least two of the torque transmitting mechanisms include servo mechanisms supported in the front end wall, and the fourth torque transmitting mechanism has friction discs disposed between the forward planetary gearset and the central planetary gearset.

*Tsukamoto* (i.e., Figs. 1 and 4; column 6, line 63 – column 15, line 56), on the other hand, teaches an automatic transmission comprising:

- A transmission housing (10) including a front end wall (Fig. 4, being the portion including elements 10a and 10f) and a rear end wall (Fig. 4, being element 10r);
- A band brake (B-1) for stopping a sun gear (S2) (i.e., column 13, line 25-43);
- A plurality of servomechanisms (5, 6, 7, 9, and 9');
- Wherein three torque transmitting mechanisms (i.e., Fig. 4, elements B-2, C-3, and C-1) include friction discs positioned between the front end wall and the forward planetary gearset and at least two of the torque transmitting mechanisms include servo mechanisms (Fig. 4, being elements 6, 7, and 9') supported in the front end wall, and the fourth torque transmitting mechanism (i.e., Fig. 4, element C-2) has friction discs disposed between the forward planetary gearset and the central planetary gearset (see Fig. 4).

It would have been obvious to one of ordinary skill in the art at the time this invention was made to modify Korkmaz such that the brake 7 is the band type brake, the transmission housing includes front end and rear end walls, and the disc clutches and brakes include servomechanisms, in view of Tsukamoto, in order to improve the power transmission efficiency by structuring the shape of the transmission housing and arranging and, some cases, simplifying the torque transmitting mechanisms.

***Response to Arguments***

5. Applicant's arguments filed 02 August 2004 have been fully considered but they are not persuasive.

Applicant argues the servomechanisms of Tsukamoto are supported on a boss 10a while the present invention has servomechanisms supported in an end wall. Examiner respectfully disagrees for the reason as follows:

Fig. 1 of the present invention shows servomechanisms (90, 100 and 120) mounted in an annular like front-end wall (60). Similarly, Fig. 4 of Tsukamoto shows servomechanisms (6, 7, and 9') mounted in an annular like front-end portion of the housing (10).

Accordingly, as set forth in paragraph 4 above, Tsukamoto meets the claimed limitations.

***Conclusion***

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 703-305-3690. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A Marmor can be reached on 703-308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3681

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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*Charles A. Marmor 9/24/04*  
CHARLES A. MARMOR  
SUPERVISORY PATENT EXAMINER  
ART UNIT 3681